AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1.   (previously presented): A wireless LAN system comprising:

at least one base station;

at least one wireless LAN terminal connected to said base station via a wireless LAN; and

a packet transmission system for transmitting a packet between said base station and said at least one wireless LAN terminal via the wireless LAN, said packet transmission system comprising:

sorting means for sorting received packets into prioritized packets and non-prioritized packets;

accumulating means for accumulating the prioritized packets sorted by said sorting means;

capsulating means for capsulating at least one of the packets accumulated in said accumulating means into at least one capsulated packet; and

transmitting means for transmitting said capsulated packet capsulated by said capsulating means.

2.   (previously presented): The wireless LAN system according to claim 1,

wherein said packet transmission system further comprises arbitrating means for

transmitting delay request information for delaying transmission of packets from said base

station to said wireless LAN terminal such that the packet transmission does not overlap with

other terminals, thereby arbitrating transmission of packets from said wireless LAN terminal to

said base station so as not to cause a collision thereof.

3.   (previously presented): The wireless LAN system according to claim 1,

        wherein said wireless LAN terminal is associated with a PCF mode, and said base station

sets a NAV time and gives timing provided to transmit said capsulated packet, to said wireless

LAN terminal.

4.   (previously presented): The wireless LAN system according to claim 1,

        wherein said packet transmission system further comprises means for adjusting a period

for transmitting said capsulated packet according to a number of real time sessions active via

said base station.

5.   (previously presented): The wireless LAN system according to claim 1,

        wherein said packet transmission system further comprises means for collecting CODEC

minimal periods corresponding to all of said wireless LAN terminals connected to each of said

base stations and setting the longest of said CODEC minimal periods of all of said wireless

terminals connected to each respective base station as a transmission period of each capsulated

packet for said respective base station.

6.   (previously presented): The wireless LAN system according to claim 1, further

comprising:

    an IP exchanger having said packet transmission system;

    a table in which IP addresses of the wireless LAN terminal connected to every said base

station and information indicative of whether said at least one wireless LAN terminal is able to

receive capsulated packets are registered; and

    means for performing control for allowing said IP exchanger to capsulate prioritized

packets based on the information registered in said table and causing said IP exchanger to

transmit said capsulated packet, if transmission destination IP addresses of received packets

respectively correspond to IP addresses of said wireless LAN terminal and said wireless LAN

terminal is able to receive said capsulated packets, and allowing said IP exchanger to transmit the

received packets to said base station without encapsulation if said wireless LAN terminal is not

able to receive said capsulated packets.

7.   (previously presented): The wireless LAN system according to claim 1,

    wherein said packet transmission system further comprises:

    arithmetic means for computing use efficiency of a general queue for accumulating the

non-prioritized packets, using a predetermined arithmetic expression; and

    control means for changing coefficients of the arithmetic expression according to a state

of accumulation of the general queue, thereby controlling a value of the use efficiency computed

by said arithmetic means.

8.   (original): The wireless LAN system according to claim 7,

wherein said predetermined arithmetic expression is represented as follows:

$$RTT = (\alpha x K x 01d\_RTT) + ((1-\alpha) \times New\_Round\_Time\_Sample)$$

$$0 \leq \alpha < 1, 0 < K \leq 1$$

where 01d_RTT indicates an RTT value up to date, New_Round_Time_Sample indicates

the time from the transmission of the latest TCP packet to the reception of an ACK, and K and α

indicate coefficients, and

said control means changes the value of the coefficient K according to the state of

accumulation of the general queue.

Claims 9-17   (canceled).

18.   (previously presented): A packet transmission system comprising:

sorting means for sorting received packets into prioritized packets and non-prioritized

packets;

accumulating means for accumulating the prioritized packets sorted by said sorting

means;

capsulating means for capsulating the packets accumulated in said accumulating means;

and

transmitting means for transmitting the packet capsulated by said capsulating means,

wherein said transmitting means transmits the capsulated packet in matching with a CODEC

period, the transmitting means transmitting the capsulated packet in a period T that satisfies $d \leq$

$T \leq C$ where the CODEC period is C and the minimum period necessary for terminal reception is

d.

Claims 19-25 (canceled).

26.   (previously presented): A base station including a packet transmission system which

comprises:

sorting means for sorting received packets into prioritized packets and packets

other than the prioritized packets;

accumulating means for accumulating the prioritized packets sorted by said

sorting means;

capsulating means for capsulating more than one of the packets accumulated in

said accumulating means into one capsulated packet; and

transmitting means for transmitting said capsulated packet capsulated by said

capsulating means.

27.   (previously presented): A wireless LAN terminal including a packet transmission system

which comprises:

sorting means for sorting received packets into prioritized packets and packets

other than the prioritized packets;

accumulating means for accumulating the prioritized packets sorted by said

sorting means;

capsulating means for capsulating more than one of the packets accumulated in

said accumulating means into one capsulated packet; and

transmitting means for transmitting said capsulated packet capsulated by said

capsulating means.

28.   (previously presented): The wireless LAN terminal according to claim 27,

wherein said sorting means further sorts the prioritized packets into moving pictures and

voice packets.

29.   (previously presented): The wireless LAN terminal according to claim 27, wherein only

when the received packets are UDP and IP ports coincide with IP ports registered in advance

respectively, said sorting means sorts the received packets into the prioritized packets.

30.   (previously presented): The wireless LAN terminal according to claim 27,

wherein said sorting means sets queues to general packets other than the prioritized

packets every MAC addresses.

31.   (previously presented): The wireless LAN terminal according to claim 27, wherein said

transmitting means transmits prioritized capsulated packets with general packets being

respectively interrupted between the prioritized capsulated packets.

32.   (previously presented): A packet transmission system comprising:

        sorting means for sorting received packets into prioritized packets and packets

other than the prioritized packets;

        accumulating means for accumulating the prioritized packets sorted by said

sorting means;

        capsulating means for capsulating more than one of the packets accumulated in

said accumulating means into one capsulated packet; and

        transmitting means for transmitting said capsulated packet capsulated by said

capsulating means.

33.   (previously presented): The packet transmission system according to claim 32,

        wherein said transmitting means transmits said capsulated packet in matching with a

CODEC period.

34.   (previously presented): The packet transmission system according to claim 32,

        wherein said sorting means further sorts the prioritized packets into moving picture

packets and voice packets, and said capsulating means capsulates the prioritized packets into

moving picture capsulated packets and voice capsulated packets.

35.   (previously presented): The packet transmission system according to claim 32,

wherein only when the received packets are UDP and IP ports coincide with IP ports

registered in advance respectively, said sorting means sorts the received packets into the

prioritized packets.

36.   (previously presented): The packet transmission system according to claim 32,

wherein said sorting means sorts general packets, which are packets other than the

prioritized packets, into queues for each MAC address.

37.   (previously presented): The packet transmission system according to claim 32,

wherein a capsulated packet transmission period of said transmitting means is counted by

an interval timer.

38.   (previously presented): The packet transmission system according to claim 32,

wherein said transmitting means transmits prioritized capsulated packets with general

packets being respectively interrupted between the prioritized capsulated packets.

39.   (currently amended): A packet transmission method performed by a base station,

comprising the steps of:

        sorting received packets into prioritized packets and packets other than the

prioritized packets;

accumulating the sorted prioritized packets;

capsulating more than one of the accumulated packets into one capsulated packet;

and

transmitting said capsulated packet, <u>wherein the sorting, accumulating, copulating</u>

<u>and transmitting steps are performed by the base station.</u>

40.   (previously presented): A wireless LAN system comprising:

at least one base station;

at least one wireless LAN terminal connected to said base station via a wireless LAN;

and

a packet transmission system for transmitting a packet between said base station and said

at least one wireless LAN terminal via the wireless LAN, said packet transmission system

comprising:

sorting means for sorting received packets into prioritized packets and non-prioritized

packets;

accumulating means for accumulating the prioritized packets sorted by said sorting

means;

capsulating means for capsulating more than one of the packets accumulated in said

accumulating means into one capsulated packet; and

transmitting means for transmitting said capsulated packet capsulated by said capsulating

means.

41.   (new): A packet transmission method performed by a wireless terminal, comprising the

steps of:

        sorting received packets into prioritized packets and packets other than the

prioritized packets;

        accumulating the sorted prioritized packets;

        capsulating more than one of the accumulated packets into one capsulated packet;

and

        transmitting said capsulated packet, wherein the sorting, accumulating, copulating

and transmitting steps are performed by the wireless terminal.